

WHAT IS CLAIMED IS:

CLAIM 1 An injection molding machine for low-melting point metallic
5 material in which the injection molding machine is constituted by a melting
cylinder having a weighing chamber with a required length communicating with
a nozzle member within a tip portion and having a supply port on an upper side
of an intermediate portion; agitating and injection means provided in the inside
thereof so as to rotate or, advance or retreat freely; and a device driving those
10 means, which is arranged on an rear-end side of the melting cylinder, and the
injection mechanism is provided obliquely in a manner that a nozzle member
side is directed in a downward direction to a mold-clamping mechanism such
that a molten metal in the inside flows down by self-weight and to be stored in
the tip portion of the melting cylinder,

15 wherein said agitating and injection means is constituted by an agitating
member in which agitating wings having a plurality of stripes with an external
diameter approximately equal to an inner diameter of the melting cylinder are
formed intermittently on an outer periphery of the tip portion of a hollow shaft
portion having a through-hole at the central position and an injection plunger
20 attached unitarily to a tip of an injection rod inserted into said through-hole and
provided slidably freely on a central position of the agitating member and
provided on the tip of the agitating member so as to insert into said weighing
chamber freely.

CLAIM 2 The injection molding machine for low-melting point metallic
25 material according to claim 1, wherein said injection rod has a screw shutting off

a molten metal intruded into a clearance between a hollow shaft portion on an intermediate region.

CLAIM 3 The injection molding machine for low-melting point metallic material according to claim 1, wherein said injection plunger is provided with a high-temperature resistant sealing ring on an outer periphery of the tip portion and has a flowing port through a fitting groove of the sealing ring and the tip of a conical plunger in the inside.

CLAIM 4 The injection molding machine for low-melting point metallic material according to claim 1, wherein said injection plunger is constituted by providing a nozzle touch device constituted by a hydraulic cylinder unitarily coupled by a tie-bar, spacing a required interval on a rear-end side of said melting cylinder, and provided in a downward direction on a frame by inserting supporting legs which both of them are projected and arranged toward a lower side into a pair of support shafts of an inclined upper surface of the frame installed on a pedestal on a base and constituted by the hydraulic cylinder and the rod across the hydraulic cylinder side and an upper of a tip portion of said pedestal.

CLAIM 5 The injection molding machine for low-melting point metallic material according to claim 1, wherein a driving device for said agitating member is constituted by an electric motor, which is provided on sides of supporting legs of the melting cylinder so as to move together with said melting cylinder.

CLAIM 6 The injection molding machine for low-melting point metallic material according to claim 1, wherein said pedestal is constituted by a nozzle touch device provided on an upper surface of a base so as to rotate or, advance

or retreat freely to said mold-clamping mechanism, and having a nozzle touch block on the tip, as well as provided by placing said frame on the pedestal provided on the rear so as to swivel freely and constituted by the rod and the hydraulic cylinder nozzle-touching the nozzle member attached to a front of the nozzle touch block to moldings by moving the pedestal to the mold-clamping mechanism together with the frame and said injection mechanism across the nozzle touch block and a rear of an upper surface of the base.

CLAIM 7 The injection molding machine for low-melting point metallic material according to claim 1, wherein said nozzle touch block is constituted by providing the nozzle member on a front face of said mold-clamping mechanism, as well as in an upper of the inner side, communicating a gate for nozzle-touching formed on an inclined rear surface with which the nozzle member of said injection mechanism touches on the nozzle member of a front surface and provided on an inclined rear surface through a hot runner bent formed within the block.